

WHAT IS CLAIMED IS:

1. A surgical device for severing tissue, the surgical device comprising;

a first shaft having a first internal lumen and a
5 first slot disposed at a distal end;

a clamp slidably disposed in the first slot
between open and closed positions to capture tissue in the
first slot, the clamp having a clamping surface disposed at
a distal end;

10 at least one electrode for applying RF energy to
the tissue captured in the first slot;

a cutting blade slidably disposed in the first
slot between open and closed positions, the cutting blade
having a cutting edge to sever the tissue;

15 first actuation means for actuating the clamp
between the open and closed positions; and

second actuation means for actuating the cutting
blade between the open and closed positions.

2. The device of claim 1, further comprising a
20 dissection tip disposed at the distal end of the first
shaft for dissecting tissue.

3. The device of claim 1, wherein the first
shaft is disposed at a proximal end to a handle.

4. The device of claim 1, wherein the clamp
25 comprises a second shaft having a second internal lumen,

the second shaft being slidably disposed in the first lumen.

5 5. The device of claim 4, wherein the second shaft has a second slot at the distal end, wherein the second slot divides the clamping surface into two prongs.

6. The device of claim 5, wherein the cutting blade is slidably disposed in the second internal lumen of the second shaft.

10 7. The device of claim 6, wherein the at least one electrode comprises first and second electrodes, each of a different polarity.

15 8. The device of claim 7, wherein the first electrode comprises at least the clamping surface of the clamp and the second electrode comprises at least the cutting edge of the cutting blade.

20 9. The device of claim 7, wherein the first electrode comprises at least the clamping surface of the clamp and at least the cutting edge of the cutting blade and the second electrode comprises at least a portion of the first shaft.

10. The device of claim 9, wherein the at least a portion of the first shaft comprises an edge defining the first slot in the first shaft.

11. The device of claim 1, wherein the first
actuation means comprises a button movably disposed in a
handle and operatively connected to the clamp, wherein
moving the button moves the clamp between the open and
5 closed positions.

12. The device of claim 1, wherein the second
actuation means comprises a button movably disposed in a
handle and operatively connected to the cutting blade,
wherein moving the button moves the cutting blade between
10 the open and closed positions.

13. The device of claim 1, wherein the first and
second actuation means comprises a button movably disposed
in a handle and operatively connected to the clamp and
cutting blade, wherein moving the button a first
15 predetermined amount moves the clamp between the open and
closed positions and moving the button a second
predetermined amount further moves the cutting blade
between the open and closed positions.

14. The device of claim 1, wherein the tissue is
20 a side branch of a vessel being harvested.

15. A method for severing tissue, the method
comprising:

providing a surgical device comprising; a shaft
having an first internal lumen and a slot disposed at a
25 distal end; a clamp slidably disposed in the slot between
open and closed positions to capture tissue in the slot,
the clamp having a clamping surface disposed at a distal

end; at least one electrode for applying RF energy to the tissue captured in the slot; a cutting blade slidably disposed in the slot between open and closed positions, the cutting blade having a cutting edge to sever the tissue;
5 first actuation means for actuating the clamp between the open and closed positions; and second actuation means for actuating the cutting blade between the open and closed positions;

capturing tissue in the slot;
10 sliding the clamp in the slot to clamp the tissue in the slot;
applying RF energy to the at least one electrode to cauterize the tissue;
sliding the cutting blade in the slot to sever
15 the cauterized tissue.

16. The method of claim 15, wherein the tissue is a side branch of a vessel to be harvested.

17. The method of claim 16, further comprising dissecting tissue from the vessel to be harvested.

20 18. The method of claim 16, wherein the first actuation means comprises a button movably disposed in a handle and operatively connected to the clamp, the method further comprising moving the button to move the clamp between the open and closed positions.

25 19. The method of claim 16, wherein the second actuation means comprises a button movably disposed in a handle and operatively connected to the cutting blade, the

method further comprising moving the button to move the cutting blade between the open and closed positions.

20. The method of claim 16, wherein the first and second actuation means comprises a button movably
5 disposed in a handle and operatively connected to the clamp and cutting blade, the method further comprising moving the button a first predetermined amount to move the clamp
between the open and closed positions and moving the button a second predetermined amount to further move the cutting
10 blade between the open and closed positions.